

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

Rec 4/5/76

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Report (if any) on Hull of Vessel. No. 3621 Port Hartlepool.

Description Inverted Compound, Surface Condensing.
 Made by Messrs Blair & Co.
 When March 1876 At Stockton.
 Diameter of cylinders 27 x 50 1/2 Length of stroke 33
one of each
 No. of revolutions per minute about 65.
 Point of cut off 1/2 stroke.
 Diameter of screw shaft 8 3/4.
 Diameter of crank shaft journals 9.
 Diameter of screw, or of paddle wheel 12.6
 Pitch of screw 14.0.
 No. of blades, 4 Total surface 30 sq. ft.
 No. of bilge pumps 2 and sizes 3 1/2 x 2 1/4 stroke single acting
 Do they pump from each compartment from engine room & aft. well.

Are all the bilge suction pipes fitted with roses yes.
 No. of feed pumps 2 and sizes 3 1/2 x 2 1/4 single acting.
 What gauges are there attached to the engines and boilers ... 1 vacuum gauge on Condenser, 1 steam on boiler in engine room & 1 in stokehold
 Description and size of Donkey Pumps ... one double acting inverted 7 1/2 dia x 9 stroke.
 Where do they pump from ... from Tanks, sea & bilges.
 No. of bilge injections one and sizes 3 1/2 dia.
 Are they connected to air, or circulating pumps to circulating pump.
 Is there a hand pump in the engine room no (donkey can be used)
 Can it be worked by the main engines no.
 Is there a deck hose of sufficient length to reach to any part of the vessel yes.

MAIN BOILERS.

Number one Description Cylindrical & Multitubular.
 Made by Messrs Blair & Co.
 When March 1876 At Stockton.
 Working pressure 70 lbs per sq. inch.
 Tested by hydraulic pressure to 140 lbs, Date July 1876.
 Description of super-heating apparatus none.
 Can each boiler be worked separately only 1 boiler.

Can the super-heater be shut off and the boilers worked separately }
 Description and area of safety valves on each boiler ... 2 spring safety valves, 4 dia = 25 sq. ins Area.
 No. of square feet of fire-grate surface in each boiler } 43 1/2.
 Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin } yes.
 Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times. } yes.

DONKEY BOILER.

Description Upright, round, with 2 water tubes.
 Where fixed in stokehold.
 Working pressure 43 lbs per sq. inch.

Tested by hydraulic pressure to 130 lbs per sq. inch. Date July 1876
 Description and area of safety valves one loaded direct 2 1/4 x 1 lever & weight 2 1/4 = 7.8
 No. of square feet of fire grate 9.6.

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship } yes.
 Are they Kingston valves or common cocks ... } Common Stop valves & Cocks.
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates } yes.
 Are the discharge pipes above or below the deep water line } Above.
 Are they each fitted with a discharge valve on the plating of the vessel } yes.

What pipes are carried through the bunkers none.
 How are they protected
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock } new.
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge } yes, by non return valves.
 Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead } No Tunnel. Sluice door on bulkhead

Rob Blair & Co Ltd Manufacturer. except of the donkey boiler.
S. Blair

I hereby certify that the whole of the above are correct particulars of the Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel "Erasmus Wilson" owned by London Stephenson Clarke & Co. of the Port of London of 496 60/100 Tons Register, and 100 Registered Horse Power, and that they have been carefully inspected and examined by me at Hartlepool. and found to be at this date, viz., April 11th 1876 in good order and safe working condition.

Survey fee £5-0-0
 Certificate 5-5-0

Received at Hartlepool by S. Blair & Co

William Allison.
 Engineer Surveyor to Lloyd's Register of Shipping.